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APPLICATION FOR LETTERS PATENT

Applicants: CHAUR-BING CHEN

Title : DETACHABLE LAMPSHADE

4 Claims

4 Sheets of Drawings

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# **DETACHABLE LAMPSHADE**

## **BACKGROUND OF THE INVENTION**

### **1. Field of the Invention**

The present invention is related to a lampshade, and more particularly to a detachable lamp that is easily stored or transported.

### **2. Description of Related Art**

Conventional lampshades generally have fixed shapes and occupy large storage spaces and raise costs for transporting.

Therefore, the invention provides a detachable lampshade to mitigate or obviate the aforementioned problems.

## **SUMMARY OF THE INVENTION**

The main objective of the invention is to provide a detachable lampshade to reduce its size for storage and cost for transporting.

Other objectives, advantages and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a perspective view of a lampshade in accordance with the invention;

Fig. 2 is an enlarged exploded perspective view of a joint of the lampshade in Fig. 1;

Fig. 3 is a side plan view in partial section of the joint of the lampshade in Fig. 2; and

Fig. 4 is a perspective view of the lampshade in Fig. 1 disassembled.

## 1     DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

2             With reference to Figs. 1-3, a lampshade in accordance with the  
3     invention has an upper ring (10), a lower ring (11), three shades (20) and three  
4     junction tubes (30). The upper ring (10) and the lower ring (11) are parallel to  
5     each other.

6             The lower ring (11) is circular and has a center (not numbered), three  
7     linkages (12) and a hub (13). The three linkages (12) respectively have inner  
8     ends (not numbered) and outer ends (not numbered). The inner ends are attached  
9     to and extend radially from the hub (13) at the center of the lower ring (11). The  
10    outer ends are connected to the lower ring (11).

11            Each shade (20) has a resilient sheet (not numbered) and two mounting  
12    rods (21) and are bent and mounted outside the upper ring (10) and the lower ring  
13    (11). The resilient sheet is rectangular and has two vertical edges (not numbered).  
14    The two mounting rods (21) are attached respectively to the vertical edges and  
15    have an upper end (not numbered) and a lower end (not numbered). Each vertical  
16    edge has an upper corner (not numbered), a lower corner (not numbered), an  
17    upper notch (22) and a lower notch (23). The upper notch is defined at the upper  
18    corner to expose the upper end of the mounting rod (21), and the lower notch (23)  
19    is defined at the lower corner to expose the lower end of the mounting rod (21).

20            The three junction tubes (30) are mounted between the upper ring (10)  
21    and the lower ring (11). Each of the tubes (30) has an outer periphery (not  
22    numbered), an upper end (not numbered), a lower end (not numbered), an axial  
23    channel (31), an upper slot (32) and a lower slot (33). The axial channel (31) is  
24    defined longitudinally through the outer periphery so two mounting rods (21)

1 from adjacent shades (20) can be mounted in the corresponding tube (30)  
2 through the channel (31). An upper slot (32) and a lower slot (33) are defined  
3 transversally in each tube (30) diametrically opposite from the channel (31). The  
4 upper ring (10) and the lower ring (11) are mounted respectively in the upper  
5 slots (32) and the lower slots (33). The rods (21) are mounted respectively  
6 between the upper ring (10) and the upper slots (32) and between the lower ring  
7 (11) and the respective lower slots (33) to hold the upper and lower rings (10, 11)  
8 in the junction tubes (30).

9 Each junction tube (30) has two fasteners (40) mounted respectively at  
10 the upper and lower end, and each fastener (40) has two elastic members (41) to  
11 abut the corresponding rods (21) to prevent the rods (21) from moving  
12 longitudinally in the tubes (30).

13 With reference to Fig. 4, the lampshade can be completely disassembled  
14 and packaged for storage or transportation. The shades (20) are spread out and  
15 stacked together, and the rings (10, 11), the tubes (30) and the fasteners (40) are  
16 placed on the shades (20). Thus, the size of the lampshade is effectively reduced,  
17 which is very convenient for storage and transportation.

18 With reference to Figs. 1-3, the lampshade is reassembled by first  
19 mounting the rods (21) from adjacent shades (20) in one of the junction tubes (30)  
20 through the channel (31) and moving the rods (21) upward above the lower slot  
21 (33). The lower ring (11) is are mounted in the lower slot (33), and then the rods  
22 (21) are moved downward between the lower ring (11) and the lower slot (33).  
23 Then the rods (21) are further moved downward below the upper slots (32). The  
24 upper ring (10) is mounted in the upper slot (32), and then the rods (21) are

1 moved upward between the upper ring (10) and the upper slot (32). Then the  
2 fasteners (40) are inserted into the tube (30) to prevent the rods (21) from  
3 moving. Repeating the processing as described above, the shades (20) can be  
4 installed outside the upper and lower rings (10, 11) to form a lampshade shaped  
5 as a flower.

6 The hub (13) of the lampshade can be supported by a seat (51) and  
7 provided with a bulb (50) to construct a lamp.

8 Even though numerous characteristics and advantages of the present  
9 invention have been set forth in the foregoing description, together with details  
10 of the structure and function of the invention, the disclosure is illustrative only,  
11 and changes may be made in detail, especially in matters of shape, size, and  
12 arrangement of parts within the principles of the invention to the full extent  
13 indicated by the broad general meaning of the terms in which the appended  
14 claims are expressed.